



METROPOLITAN
TRANSPORTATION
COMMISSION

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ARTERIAL OPERATIONS COMMITTEE (AOC)

10 A.M. – 12 P.M., Tue., May 8, 2012

Joseph P. Bort MetroCenter
Conference Room 171
101 Eighth Street
Oakland CA 94607-4700

Chair: David Kobayashi, VTA
Vice-Chair: David Mahama, DKS
Staff Liaisons: Vamsi Tabjulu, MTC
Danielle Stanislaus, MTC

The Arterial Operations Committee (AOC) oversees the Bay Area's efforts to improve arterial efficiency and safety. This Committee membership is open to traffic engineers in the public and private agencies in the Bay Area. For more information, please email vtabjulu@mtc.ca.gov or visit the Arterial Operations Program website at http://www.mtc.ca.gov/services/arterial_operations/.

AGENDA

1. Introductions (Kobayashi)

- *Notes from meeting on March 13, 2012**

2. Regional Transportation Plan (RTP) Update (Stanislaus)

3. Transit Performance Initiative (TPI) Update (Stanislaus)

4. Tech Transfer Seminar* (Tabjulu)

- *HCM 2010 & CA MUTCD 2012: Updates Relating to Arterials – Seminar Evaluation and Feedback*
- *Future Seminar Topics for Consideration*

5. Program for Arterial System Synchronization (PASS)* (Tabjulu)

- *PASS FY 10/11 Cycle – MTC Annual Report to Congress*
– CA Transportation Foundation Award Finalist – “Operational Efficiency Program of the Year”
- *PASS FY 11/12 Cycle – Project Status Updates*
- *PASS FY 12/13 Cycle – Program Schedule*
– PASS Project Field Equipment Verification

6. Bay Area Signalized Intersection System (BASIS) Update (Stanislaus)

7. New Business (All)

8. Featured Presentation – Santa Clara County Traffic Responsive Coordination System (Ananth Prasad, Santa Clara County)

**Attachment in the packet*

Next Meeting: Tue., July 10, 2012 at 10 A.M., Room 171

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Arterial Operations Committee

Notes from meeting on March 13, 2012

1. Introductions

- All members introduced themselves. The notes from the meeting on January 10, 2012 were approved as written.

2. Regional Transportation Plan (RTP) Update

- Danielle Stanislaus reminded the AOC members that the MTC Planning Committee will review various options/alternatives to meet the goals and objectives of Play Bay Area at its next meeting. She requested members to participate in these meetings and highlight the need for ITS improvements on the Bay Area arterials. She said that the initial request of \$4.5 billion for FPI, which includes the Arterial Ops funding, has been scaled back to \$2.1 billion. She said that even if a part of the request is approved, the level of funding for arterial operations will be significantly higher than the current level of \$1.25 million per year. She said that the plan will be based on the regional growth forecasts estimated as: 1.1 million jobs growth; 2.1 million population growth; and 660,000 housing growth.

3. Tech Transfer Seminar

- Vamsi Tabjulu said that the next Tech Transfer Seminar on “HCM 2010 and CA MUTCD 2012: Updates Relating to Arterials” will be held on Wed, March 21st in the MTC MetroCenter Auditorium and there are over 100 online registrations to date. He said that the seminar will provide a brief summary of the recent changes to the Highway Capacity Manual (HCM) 2010 and the California - Manual on Uniform Traffic Control Devices (CA MUTCD) 2012, and will focus specifically on those changes which are relevant for arterial operations. He said that these topics will be covered by Richard Dowling (Senior Principal Engineer), Kamala Parks (Senior Planner) and Aaron Elias (Engineering Associate) from Kittelson & Associates, Inc., and Johnny Bhullar from Caltrans HQ.

4. Program for Arterial System Synchronization (PASS)

- *PASS FY 10/11 Cycle:* Vamsi said that MTC has produced fact sheets for all the 13 projects in this cycle including an overall benefits summary. He said that these fact sheets are helping staff to bring awareness of the arterial operations and publicize the benefits to various modes through effective signal operations. He said that MTC issued a Press Release summarizing these benefits which was reported by the Sacramento Bee online edition. Also, Bay Crossings, a monthly magazine featuring articles on San Francisco Bay cultural, environmental and maritime issues, reported a full-page article on the PASS.
- *PASS FY 11/12 Cycle:* He said that this cycle has a total of 21 projects consisting of 362 traffic signals from eight counties in the Bay Area, and provided a brief status update on all of the projects. He said that MTC procured over 100 GPS clocks required for this cycle from McCain, Inc. at a very low, competitive price due to the bulk order and contracted with Mike Brown Electric Co. to install the GPS hardware at the Caltrans signals. The signal operations staff from Caltrans will configure these clocks to establish a common time-source needed for the coordination of the signals. MTC will actively coordinate this task with all stakeholders for the successful implementation of the projects.
- *PASS FY 12/13 Cycle:* He said that MTC released the Call for Projects for the PASS FY 12/13 Cycle on March 5, 2012 and interested agencies must submit their applications by April 10, 2012. He highlighted some of the requirements and changes to the application form in the Call for Projects. He requested interested agencies to submit their applications before the due date.

5. Bay Area Signalized Intersection System (BASIS)

- Danielle said that staff is currently working with VTA to collect the data from the SCL County agencies. She said that staff is also planning to reach out to the Alameda County agencies through Alameda CTC's ACTAC. Considering the resource constraints at many agencies, several members requested the assistance of an electrical contractor to help with their inventory.

6. New Business:

- AOC members hosted a brief reception in honor of Albert Yee, Director of MTC's Highway and Arterial Operations section, on his retirement after 33 years of public service at Caltrans and MTC. AOC Chair David Kobayashi presented him a commemorative award for his dedicated service and commitment to the AOC and arterial operations in the Bay Area. Danielle presented him with a photo frame with the AOC group photographs from the last two annual meetings.

7. Adjournment: The meeting adjourned at 12:00 P.M.

Arterial Operations Committee
Attendees from meeting on March 13, 2012

#	Name	Agency	Phone No.	E-Mail
1	Albert Yee	MTC	510.817.5770	ayee@mtc.ca.gov
2	Ananth Prasad	Santa Clara Co.	408.494.1342	ananth.prasad@rda.sccgov.org
3	Barry Rodinsky	Econolite	510.562.3215	brodinsky@econolite.com
4	Brian Sowers	Kimley-Horn	925.398.4862	brian.sowers@kimley-horn.com
5	Danielle Stanislaus	MTC	510.817.5737	dstanislaus@mtc.ca.gov
6	David Huynh	Fremont	510.494.4484	dhuynh@ci.fremont.ca.us
7	David Kobayashi	VTA	408.321.5892	david.kobayashi@vta.org
8	David Mahama	DKS	510.267.6613	dcm@dksassociates.com
9	David Man	Caltrans	510.286.4607	david_man@dot.ca.gov
10	Dean Hsiao	San Leandro	510.577.3410	dhsiao@ci.san-leandro.ca.us
11	John Rudolph	WCCTAC	510.215.3042	johnr@ci.san-pablo.ca.us
12	Jose Pacheco	Hercules	510.799.8247	jpacheco@ci.hercules.ca.us
13	Josh Peterman	Fehr & Peers	925.930.7100	j.peterman@fehrandpeers.com
14	Josh Pilachowski	DKS	510.267.6620	josh@dksassociates.com
15	Joy Bhattacharya	TJKM	925.463.0611	jbhattacharya@tjkm.com
16	Lily Lim-Tsao	San Jose	408.975.3269	lily.lim-tsao@sanjoseca.gov
17	Murray Chang	Union City	510.675.5311	murrayc@unioncity.org
18	Nayan Amin	URS	408.297.9585	nayan.amin@urs.com
19	Nazy Sobhi	Case	415.407.4915	nazysobhi@yahoo.com
20	Rene Baile	Menlo Park	650.330.6775	rcbaile@menlopark.org
21	Rick Dowling	Dowling	510.839.1792	rdowling@dowlinginc.com
22	Ruta Jariwala	URS	408.297.9585	ruta_jariwala@urscorp.com
23	Saravana Suthanthira	ACTC	510.208.7426	ssuthanthira@alamedactc.org
24	Shirley Chan	Daly City	650.991.8231	schan@dalycity.org
25	Shruti Malik	Hatch Mott	925.469.5373	shruti.malik@hatchmott.com
26	Stephen Lewis	CHS	415.392.9688	skewus@chsconsulting.net
27	Tony Chu	TJKM	925.463.0611	tchu@tjkm.com
28	Vamsi Tabjulu	MTC	510.817.5936	vtabjulu@mtc.ca.gov
29	Virendra Patel	Alameda	510.747.7947	vpatel@ci.alameda.ca.us



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Memorandum

TO: Arterial Operations Committee

DATE: May 1, 2012

FR: Vamsi Tabjulu

W. I.: 1234

RE: **Tech Transfer Seminar Program**

The Tech Transfer Program is an ongoing initiative under MTC's Arterial Operations Program, which supports efforts to improve the operations, safety, and management of the Bay Area's arterial network. Through this program, MTC provides seminars on a variety of topics of interest to local traffic engineers. The current schedules and handouts from previous seminars are available on the tech transfer webpage at:

http://mtc.ca.gov/services/arterial_operations/tech.htm

HCM 2010 & CA MUTCD 2012: Updates Relating to Arterials – Seminar Evaluation and Feedback

The seminar on Highway Capacity Manual (HCM) 2010 and the California - Manual on Uniform Traffic Control Devices (CA MUTCD) 2012 was held on Wed, March 21, 2012 in the MTC MetroCenter Auditorium. Over 125 participants from various public and private agencies attended the seminar, proving the wide outreach efforts conducted and topics selected yield a successful outcome in terms of attendance at these seminars. The seminar provided a brief summary of the recent changes to the HCM 2010 & CA MUTCD 2012, with specific focus on the changes relevant to arterial operations. The handouts and the digital audio recordings are posted on the tech transfer webpage listed above.

The first half of the seminar addressed the major changes in the HCM 2010 from the 2000 edition that are relevant to the analysis of the performance of arterials. Some of the prominent changes covered were the integration of Level of Service (LOS) evaluations for pedestrian, bicycle and transit modes, and the LOS evaluation for non-automobile modes through traveler perception models and other operational factors. The following speakers from Kittelson & Associates, Inc. covered this topic: Richard Dowling (Senior Principal Engineer), Kamala Parks (Senior Planner) and Aaron Elias (Engineering Associate).

The second half of the seminar covered the changes in the recently adopted CA MUTCD 2012 edition which provides uniform standards and specifications for all official traffic control devices in California. This edition includes all policies on traffic control devices

issued by Caltrans and other corrections and format changes to the previous editions. This topic was covered in its entirety by Johnny Bhullar (Editor, CA MUTCD) from Caltrans HQ.

Evaluation Summary (from 74 completed evaluation forms):

1. What is your overall assessment of this seminar? (*Assign a letter grade from A through F*)

Grade	# of Evaluations	%
A/A-	55	75%
B+/B	16	22%
B-/C+/C-	3	3%
<i>Total</i>	74	100%

Seminar Content:

Average Score

2. Did the seminar content adequately cover the topic? **4.33 / 5**
3. Was the subject matter adequately covered in the time provided? **4.23 / 5**
4. Was the material current and useful for your future projects? **4.45 / 5**

Speakers:

5. Were the speakers/presentations well organized and did they follow a logical sequence? **4.58 / 5**
6. How would you rate their overall knowledge and ability to convey the subject matter? **4.65 / 5**
7. Was there adequate time for Q&A? **4.54 / 5**

Handouts/ Materials:

8. Were the presentations of professional quality and easy to read? **4.58 / 5**
9. Were the handouts/materials used effectively in the seminar? **4.51 / 5**
10. Will the handouts/materials serve as a useful reference? **4.50 / 5**

Future Seminar Topics for Consideration

The following topics were suggested in the evaluation forms for future seminars:

- Traffic Signal Design; Timing Coordination; Transit/Emergency Signal Pre-Emption
- Traffic Calming Methods And Practices; Sustainability Design; Roadway Design; Traffic Management Center Operations

- Bike and Ped. Facilities; Transit Operations With Bicycle Facilities (on Lanes/on Routes)
- Modeling Developments; Trip Generation
Rail Road Flashing Beacons (RRFB) & Hybrid Pedestrian Beacon Standards, Warrants and Usage
- Highway Design Manual; HCM 2010/MM LOS & its Application/Policy
Implications/Impacts on Local Agencies; Training on MM LOS using Software
- Intelligent Transportation Systems (ITS) Sustainability and CAP Matters; LED Street Lights; Fiber Optics Design
- American Disability Act (ADA) Compliance & Public Right of Way Improvements; Green House Emission Measures/Methodologies

AOC members will be asked to select a topic at the meeting for the next tech. transfer seminar, which will be held in the fall of 2012. If you are unable to attend the May AOC meeting but have any suggestions for topics and/or speakers, please email them to Vamsi Tabjulu at vtabjulu@mtc.ca.gov.



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Memorandum

TO: Arterial Operations Committee

DATE: May 1, 2012

FR: Vamsi Tabjulu

W. I. 1234

RE: **Program for Arterial System Synchronization (PASS)**

The purpose of the Program for Arterial System Synchronization (PASS) is to provide technical and financial assistance to Bay Area agencies to improve the safety and efficiency of the operations of certain traffic signal systems/corridors. The PASS provides traffic engineering assistance to local jurisdictions in retiming their traffic signals, including developing transit signal priority plans, incident management flush plans, traffic responsive timing plans, and establishing communication between state and local signals, among other eligible services. MTC will administer and manage this program, but the primary responsibility for the operation and retiming of traffic signals resides with the agency that owns them. More information on the PASS is available at: http://www.mtc.ca.gov/services/arterial_operations/pass.htm

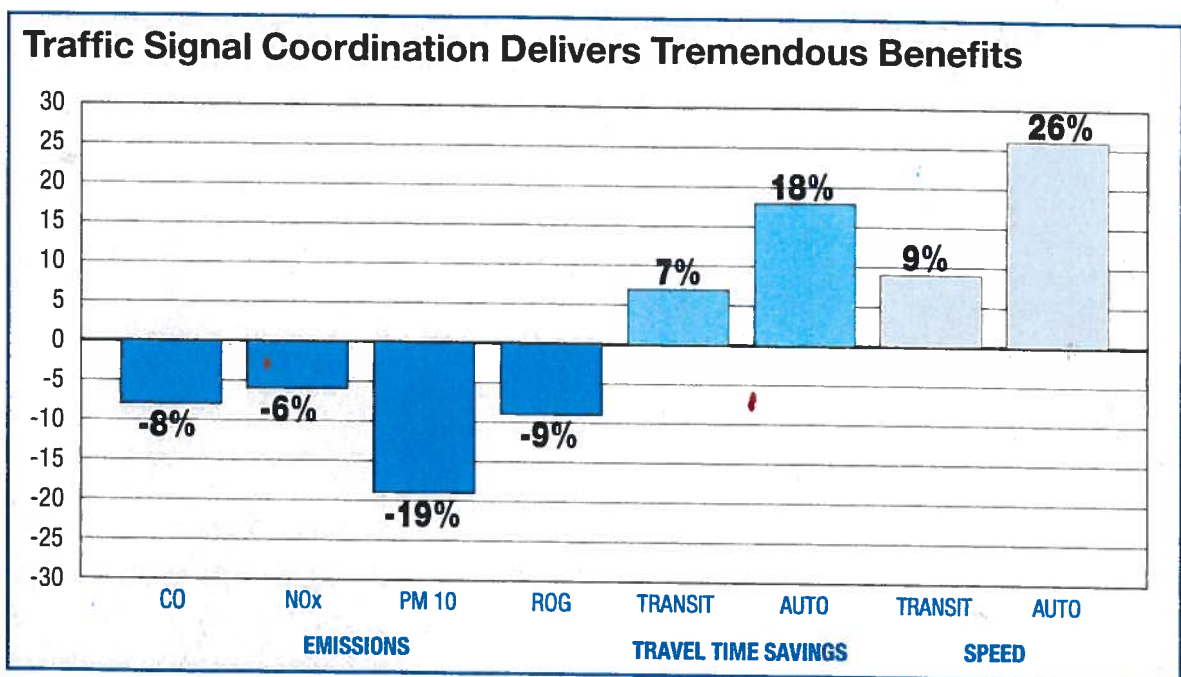
PASS FY 10/11 Cycle - MTC Annual Report to Congress

MTC included a one page summary of the PASS in its “33rd Annual Report to Congress” titled “Investing in Transportation Infrastructure = Jobs.” The report and the PASS summary page is available on the MTC website at: http://www.mtc.ca.gov/library/leg_reports/leg_reports.htm and is attached to this memo in the next page.

Also, the PASS FY 10/11 Cycle has been selected as a finalist for the California Transportation Foundation’s (CTF) award in the “Operational Efficiency Program of the Year” category. The credit for this nomination goes to these agencies and consultants that were part of the first cycle of the PASS: *MTC; Caltrans D4; Kimley-Horn & Associates; TJKM Transportation Consultants; URS Corporation; the Cities of Alameda, Petaluma, Napa, Santa Rosa, Petaluma, Fairfield, Walnut Creek, Fremont, Livermore, San Leandro, Union City, Hayward, Redwood City and South San Francisco, and the County of Santa Clara.* The final award winner will be announced at the CTF’s 23rd Annual Transportation Awards Luncheon on May 23rd in Sacramento. Interested agencies who would like to attend the luncheon can register on the CTF’s website at: <http://www.transportationfoundation.org/transportation-awards/>. The other award finalists in this and other categories can be found on the CTF website listed above. MTC thanks Caltrans, local agencies and the consultants for their efforts in successfully completing the projects and achieving this distinction.

Timing Is Everything: PASS Program Delivers Impressive Results

With a benefit-cost ratio of 80:1, the Program for Arterial System Synchronization, or "PASS" for short, has been a huge success. This program provides CMAQ funding for local cities and counties to better coordinate traffic signals in order to reduce traffic congestion, speed up travel for various modes and reduce tailpipe emissions.



Technology can help to speed traffic and reduce tailpipe emissions on our local streets and roads.

For an investment of only \$1.3 million, the program simultaneously reduced traffic congestion, sped up transit service and reduced emissions.

The first phase included seven Bay Area counties and consisted of 339 traffic signals, many of which were coordinated for the first time. Unlike many transportation projects that take years to go through the design and environmental review process, these projects were completed in a single year. The second PASS program cycle — expected to deliver equally large benefits — is underway and consists of 21 separate projects and over 360 signals.

PASS FY 11/12 Cycle – Project Status Updates

This cycle has a total of 21 projects consisting of 362 traffic signals from eight counties in the Bay Area. A majority of the projects are currently in the final stages of implementation and fine-tuning. The project corridors, # of signals, services and current status are listed in *Table 1: PASS FY 11/12 Cycle – Project Status Updates* attached to this memo. The PASS electrical contractor, Mike Brown Electric Co., has completed the installation of the GPS clocks at most of the Caltrans signals. MTC is sending notification letters to the transit agencies informing them about the PASS “transit after study” data collection on their buses.

PASS FY 12/13 Cycle – Program Schedule

MTC released the Call for Projects for the PASS FY 12/13 Cycle on March 5, 2012 with a due date of April 10, 2012. A total of 25 applications involving over 700 signals and 30 local agencies were submitted. Considering the limited availability of funds, it may not be possible to fund all projects and/or services requested in the applications (which are estimated to cost at least three times the available funds). The applications are being reviewed by a panel of MTC and Caltrans staff which will make its recommendations to the MTC Operations Committee for approval at the June 8, 2012 meeting. The project applicants will be notified immediately thereafter.

Projects and/or services that do not receive funding immediately will be placed on an eligibility list, in case one or more approved projects cannot be pursued. Unsuccessful applicants are encouraged to reapply in the subsequent cycles of the program, since the projects are approved based on the funds available for that year. MTC will provide a summary of all of the funded projects at the July AOC meeting.

Table 1: PASS FY 11/12 Cycle - Project Status Updates

#	County	Sponsor Agencies	# of Signals			Corridor	Basic Services	Additional Services (# of signals)		# of GPS Clocks			Consultant	Current Project Status ¹
			CT	Local	Total		Service	Other Plans/Services	Transit Evals	CT	Local	Total		
1	Alameda	City of Berkeley	0	46	46	University Ave; 7th St; Shattuck Ave; MLK Jr. Way; Sacramento Ave	Weekday (AM/MD/PM)	Weekend (14)	Yes	0	3	3	KHA	4A
2	Marin	City of San Rafael, Caltrans	5	72	77	Downtown; Freitas; Anderson; Bellam Blvd	Weekday (AM/MD/PM)	None	Yes	3	2	5	KHA	4A
3	Contra Costa	City of San Ramon	0	14	14	Bollinger Canyon Rd	Weekday (AM/MD/PM)	School Peak Plans (6); Signal Phasing Analysis (14)	Yes	0	0	0	KHA	4A
4	Santa Clara	County of Santa Clara, Caltrans	1	23	24	Foothill Expy; Pagemill Expy	None	Traffic Responsive with IM Flush Plans	No	1	0	1	KHA	4A
5	Alameda	City of Alameda	0	10	10	Park St Corridor	Weekday (AM/MD/PM)	IM Flush Plans (10)	Yes	0	0	0	TJKM	4A
6	Contra Costa	City of Brentwood, Caltrans	1	11	12	Balfour Rd	None	School Regular AM/PM Peak (12); Wed PM Peak (3)	No	1	5	6	TJKM	4A
7	Marin	County of Marin, City of Larkspur, Caltrans	1	11	12	Sir Francies Drake Blvd	Weekday (AM/MD/PM)	Signal Controller Evaluation (1)	No	2	3	5	TJKM	4A
8	Santa Clara	City of Mountain View, Caltrans	3	4	7	N Rengstorff Ave	Weekday (AM/MD/PM)	None	Yes	0	5	5	TJKM	4A
9	Napa	City of Napa, Caltrans	6	7	13	Silverado Trail; Soscol Ave	Weekday (AM/MD/PM)	Weekend (6); School PM Peak (1)	No	6	1	7	TJKM	4A
10	Alameda	City of Oakland	0	14	14	Telegraph Ave	Weekday (AM/MD/PM)	None	Yes	0	13	13	TJKM	4A
11	Sonoma	City of Petaluma, Caltrans	2	12	14	Washington St	Weekday (AM/MD/PM)	Post Construction Plans (3)	Yes	2	0	2	TJKM	3B
12	Alameda	City of San Leandro, Caltrans	3	6	9	Hesperian Blvd	Weekday (AM/MD/PM)	None	No	1	0	1	TJKM	4A
13	San Mateo	City of South SF, Caltrans	3	5	8	Westborough Blvd	Weekday (AM/MD/PM)	School PM Peak (8)	Yes	0	3	3	TJKM	3B
14	Sonoma	Town of Windsor, Caltrans	0	4	4	US 101 Ramps; Local Raods	Weekday (AM/MD/PM)	Traffic Responsive Feasibility Study (4)	No	0	0	0	TJKM	4A
15	Contra Costa	Town of Danville, County of Contra Costa, Caltrans	0	22	22	Sycamore Valley Rd; Camino Tassajara	Weekday (AM/School PM/PM)	School PM Peak (instead of mid-day plans)	No	0	2	2	URS	4A
16	San Mateo	City of East Palo Alto, Caltrans	2	12	14	University Ave	Weekday (AM/MD/PM)	Weekend (8)	No	2	2	4	URS	2A
17	Alameda	City of Fremont, Caltrans	2	11	13	Decoto Rd; Fremont Blvd; Paseo Padre	Weekday (AM/MD/PM)	None	Yes	2	0	2	URS	4A
18	San Mateo	City of Menlo Park, Caltrans	0	10	10	Willow Rd; SH 114	Weekday (AM/MD/PM)	None	Yes	6	4	10	URS	2A
19	Santa Clara	City of Santa Clara, County of Santa Clara, Caltrans	1	21	22	Great America Pkwy; Bowers Ave	Weekday (AM/MD/PM)	None	Yes	1	3	4	URS	4A
20	San Mateo	County of San Mateo	0	4	4	Alameda de las Pulgas	Weekday (AM/PM)	ADT (2)	No	0	4	4	URS	4A
21	Solano	City of Suisun City, City of Fairfield, Caltrans	4	9	13	SR 12; Local Roads	Weekday (AM/MD/PM)	Extended AM Peak (5 - 7AM)	Yes	4	9	13	URS	3B
Total			34	328	362					31	59	90		

¹ 1B = Final Detailed Workscope Schedule and Budget (DWSB); 2A = Draft Existing Conditions Report; 2B = Final Existing Conditions Report; 3A = Draft Recommendations Report; 3B = Final Recommendations Report; 4A = Final Timing Sheets; 4B = Final Project Report with Benefit-cost Analysis (Project Completion)